R E M A R K S

Applicant has carefully considered the Final Office Action mailed April 23, 2004. Applicant wishes to express his appreciation to the Examiner for the telephone conversations including the one conducted by the undersigned, Applicant's attorney, on July 8, 2004. The Examiner indicated that for any response to be filed, further consideration would be required.

The present response is intended to implement the conclusions of the conversation, by filing a Request for Continued Examination, in addition to this amendment. Reconsideration and allowance of the application are respectfully requested.

As stated in the previous response filed on April 1, 2004, it is a principal object of the present invention to more efficiently move data from one CPU to another over a bus such as a PCI bus, using enhanced queue management techniques. The PCI bus is capable of performing write operations significantly faster than read operations, and the invention executes an across-a-computer bus read operation, by substituting for this operation - a plurality of write operations across the PCI bus, and read operations from a local memory.

In the previous response, the specification was amended to remove the Examiner's objection under Sec. 112 to the use of the term "magic number". Certain paragraphs were rewritten for improved clarity, without introducing any new matter.

The Examiner has objected to this previous amendment since, in his opinion, the amendment does introduce new matter.

Applicant respectfully disagrees with the Examiner.

For purposes of explaining the term "magic number" and its use in the art of I/O data buffering and data processing circuitry, attached herewith is an unsigned draft of a Sec. 132 affidavit (to be shortly submitted with signature) by an expert

in the field, Michael Ben-Nun, who is the Chief Technology Officer of the Applicant, P-Cube Ltd.

In the Sec. 132 affidavit, a portion of the specification is reproduced and an analysis of the original text is provided. A brief review is presented here for the Examiner's convenience.

The specification portions describing the "magic number" are listed below, with the key sentences numbered (1)-(3).

Page 9, beginning at line 6:
(1) *"The last message of the last data is followed by a stopper designator separator, which is marked as "FM", wherein F represents a hexadecimal numerical value and M represents a predefined magic number."*

Page 9, beginning at line 9:
(2) *"The 'LP' contains at least a length field, designating the amount of data to be read in the following message. Usually this is a number of bytes to be read. It further contains a predefined identification number, also known as a 'magic number', which is used by the system to verify correctness of the queue management."*

Page 9, beginning at line 19:
(3) *The "FM" is comprised at least of a stopper designator, which is a predefined numerical value, followed by the predefined magic number."*

The Examiner notes that:

"The original disclosure only supports a magic number in both a header-type separator and a stopper-type separator,"

and then the Examiner concludes

"...which indicates to the examiner that the magic number in the header-type separator is the same magic number that is in the stopper type separator".

In sentence (1) reproduced above, there is mentioned "*a predefined magic number*."

In sentence (2) above, there is mentioned "*a predefined identification number, also known as a 'magic number'...*"

As stated in the Sec. 132 Affidavit, a person skilled in the art would conclude that the "magic numbers" described by

the specification of the application are two separate magic numbers. This is because two definitions are provided by these sentences (1) and (2), *a predefined magic number"*, and "*a predefined identification number*". The second definition adds the statement "also known as a 'magic number'", and it is clear that the use of the word "also" is meaningful only if there is a distinction between the two definitions.

This would not preclude, in a particular case, having both magic numbers of the "LP" and the "FM" be identical.

Seemingly, the Examiner has confused the requirement of having a magic number in both "LP" and "FM", which is correct, with a requirement that both of these are identical, which is false.

Thus, the previous amendment to the text regarding the "magic number" has not introduced anything new, except the descriptive term "header-type" and "stopper-type" separator.

The previous amendment was to clarify that the message separators are of two types. This clarification better explains the function of the stopper and the respective "magic number", which is a known queue management technique, used in each of the separators. As indicated in the specification at page 9, line 11, the "magic number" is a predetermined number "which is used by the system to verify correctness of the queue management".

For this reason, the previous amendment is considered to meet the requirements of Sec. 112, without adding new matter.

The Examiner has rejected the claims as not meeting the enablement requirements of Sec. 112.

In the present amendment, claim 1 has been amended to further clarify the sequence of write operations which are performed to avoid a read operation, in the following summary:

a) two write operations by the transmitting CPU to the receiving CPU, and

b) one write operation by the receiving CPU to the transmitting CPU, with the data read by the transmitting CPU.

Support for this amendment is provided by a careful reading of the specification, and a chart is presented to assist the Examiner (with text underlined for comparison):

CLAIM LANGUAGE	SEC. 112 SUPPORT IN SPEC.
Claim 1: h) ..... such that said transmitting CPU performs a read operation from said receiving CPU by the performance of:	p. 8, line 7: "The content of read head register 230 [IN RECEIVER 200] is an address pointing to the location from which data is to be read. When receiver 200 reads data received from transmitter 210, it uses the address indicated by read head register 230 to access the data necessary... p. 6 line 5: "... apparatus and method which accomplishes the transmission of a data message from a transmitting CPU to a receiving CPU across a data bus, using a series of write operations with no read operations being performed across the said data bus."
1) a write operation providing a separator to said local memory of said receiving CPU	p. 9, line 4: "The data in memory queue 240 is written... contains a header separator...
at a location pointed to by said write head register;	p. 7, line 1: "... pointer pointing to the next place for writing new information." p. 9, line 24: "Both write head 280 and read head 230 should be set to the address in memory that is the first byte of memory queue 240".
2) a write operation of at least one message	p. 9, line 4: "The data in memory queue 240 is written... it contains... and actual message content, marked as 'mm'."
to said local memory of	p. 10, line 24: "... the message

said receiving CPU	is written in step 340 into memory queue 240..."
at a location pointed to by said write head register,	p. 7, line 1: "... pointer pointing to the next place for writing new information." p. 9, line 24: "Both write head 280 and read head 230 should be set to the address in memory that is the first byte of memory queue 240.
requesting data to be read by said transmitting CPU; and	p. 8, line 7: "The content of read head register 230 [IN RECEIVER 200] is an address pointing to the location from which data is to be read. When receiver 200 reads data received from transmitter 210, it uses the address indicated by read head register 230 to access the data necessary...
3) a write operation performed by said receiving CPU to said transmitting CPU containing said data to be read by said transmitting CPU.	p. 14, line 16: "...the only exchange between the receiver 200 and the transmitter 210... is the update by the receiver to the transmitter... "

As the Examiner indicates in his comment in paragraph 4, "the specification... (is) enabling for the receiving CPU to achieve a read operation..."

It is the Applicant's position that the amended claim 1 language is well-supported by the specification, and the above chart makes it possible to see this clearly by comparison of the text and the claims.

It is suggested that if the Examiner finds it necessary, the specification will be amended to add the language of claim 1, so as to support the claim by matching language in the text.

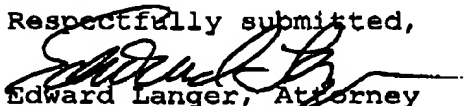
As stated in the previous amendment, the Applicant believes that the combination of the Daniel et al. and Young references

cannot support a Sec. 103(a) rejection, and Applicant respectfully requests that it be withdrawn.

Therefore, claim 1 is deemed to be patentable, and dependent claims are also deemed to be patentable.

In view of the foregoing remarks, it is believed that the Examiner's objections have been overcome, and early reconsideration and allowance of the claims is respectfully requested.

Respectfully submitted,



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